Amendments to the Specification:

Please replace the paragraph beginning "**FIGS. 4A-4E** are reconstructed image patterns ..." on line 7 of page 14 with the following paragraph:

FIGS. [[**4A-4E**]] **4A-4D** are reconstructed image patterns as functions of image distance. The horizontal axis is z_i in cm, and the vertical axis, in mm, is a slice of the reconstructed image along the dotted line shown in FIG. 3C: **FIG. 4A,** a single wavelength or frequency; **FIG. 4B,** combination of two holograms at relative frequencies, 0.0 and 1.0GHz; **FIG. 4C,** two relative frequencies, 0.0 and 2.0 GHz; **FIG. 4D,** three relative frequencies, 0.0, 1.0, and 2.0 GHz~~; FIG. 4E, eleven relative frequencies, 0.0, 1.0,2.0,..., 10.0 GHz~~.

Please replace the paragraph beginning "The invention thus demonstrates the use of multiwavelength interference..." on line 4 of page 18 with the following paragraph:

The invention thus demonstrates the use of multiwavelength interference of computer-reconstructed holograms for high axial resolution of three-dimensional images. The apparatus is very simple and amenable to electronic automation without mechanical moving parts. Even with less-than-optimal laser and imaging systems, the theoretically predicted axial resolution is easily achieved. The main source of imperfection in FIGS. ~~4A-4E,~~ 4A-4D, for example, was the mode hop and drift of the nonstabilized laser frequency. Another embodiment may include, for example, the use of a compact diode laser, direct transfer of an image to a CCD array surface, and automation of the multiple exposure for speed and stability. The technique can be applied to both microscopic and telescopic imaging for cross-sectional imaging of objects of various scales. The cross-sectional images can then be recombined with appropriate scaling for the removal of distortion, resulting in a synthesis of three-dimensional models that can be subjected to further analysis and manipulation.